



Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	CE UKCA WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
Magnetic field frequency, interference field	1000 Hz
Magnetic field strength, interference field	160 kA/m
Min. operating current I _m	0 mA
No-load current I _o max., damped	17 mA
No-load current I _o max., undamped	10 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
Protection class	II
Rated insulation voltage U _i	250 V AC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	30 ms
Residual current I _r max.	80 µA
Ripple max. (% of U _e)	15 %
Switching frequency	300 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67
Magnetic field immune	magnetic field immune (AC/DC)

Inductive Sensors
BES M18EL-POC12E-S04G
Order Code: BES01R0



Functional safety

MTTF (40 °C)	520 a
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Interface

Switching output	PNP normally closed (NC)
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Material

Housing material	Stainless steel
Material sensing surface	LCP

Mechanical data

Dimension	Ø 18 x 65 mm
Installation	non-flush
Size	M18x1
Tightening torque	40 Nm

Range/Distance

Assured operating distance Sa	10.8 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	12 mm
Real switching distance sr	12 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
 For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings



Wiring Diagrams

